

**Department of Environmental Conservation
Response to Comments**

For

**Ted Stevens Anchorage International Airport
APDES Permit No. AKR061000**

Public Noticed March 1, 2019 to April 15, 2019

July 24, 2019



**Alaska Department of Environmental Conservation
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, AK 99501**

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1 Introduction

1.1 Summary of Facility / Permit

The Ted Stevens Anchorage International Airport (ANC) is operated by the Alaska Department of Transportation & Public Facilities. ANC is located on 4,700 acres at the west end of the Municipality of Anchorage, overlooking the Knik and Turnagain Arms of Cook Inlet. It is the largest airport in Alaska and serves as the major air gateway for passenger travel in and out of Alaska; it is also a key international cargo crossroads for transpacific freighter activity. There are approximately twenty-five co-permittees that conduct aircraft deicing, aircraft maintenance, or aircraft fueling at ANC. There are five permitted outfalls from the facility into Lakes Hood and Spenard, Knik Arm and Turnagain Arm. One outfall into Knik Arm will have a mixing zone.

1.2 Opportunities for Public Participation

The Department of Environmental Conservation proposed to issue an Alaska Pollutant Discharge Elimination System (APDES) storm water discharge permit to *Ted Stevens Anchorage International Airport*. To ensure public, agency, and tribal notification and opportunities for participation the Department:

- identified the permit on the annual Permit Issuance Plan posted online at: <http://dec.alaska.gov/water/wastewater.aspx>
- notified potentially affected tribes that the Department would be working on this permit via letter, fax and/or email
- posted a preliminary draft of the permit on-line for a 10-day applicant review *May 23, 2018 to June 7, 2018* and notified tribes and other agencies
- formally published public notice of the draft permit on *March 1, 2019* in the *Anchorage Daily News* and posted the public notice on the Department's public notice web page
- held public meeting(s)/hearing(s) on the draft permit *on April 3, 2019 at the Coast International Inn in Anchorage*.
- posted the proposed final permit on-line for a 5-day applicant review
- sent email notifications via the APDES Program List Serve when the preliminary draft, draft, and proposed final permits were available for review

The Department received comments from 10 interested parties on the draft permit and supporting documents, including comments from the oral transcripts of the five people who testified at the public hearing. The Department also received comment from the National Oceanic and Atmospheric Administration, National Marine Fisheries Service.

This document summarizes the comments submitted and the justification for any action taken or not taken by DEC in response to the comments.

1.3 Final Permit

The final permit was adopted by the Department on [date]. There [were/were no] changes from the public noticed permit. Significant changes are identified in the response to comments and reflected in the final fact sheet for the permit.

2 General Comments on the Permit

2.1 Comment Summary

The Department received a comment that some of the nuisance problems, and to a lesser degree, some of the water quality problems have been persistent at the airport for a long time. The commenter is anxious to see them resolved and is hopeful the new permit will be able to do that.

Response:

The permit addresses residues violations at Outfall 004D, the historic high ammonia values were reduced through product substitution of urea with a different product, the question of the toxicity of the discharge is being addressed by requiring Whole Effluent Toxicity testing, and more detailed monitoring of the discharges from the outfalls. No changes were made based on this comment.

2.2 Comment Summary

The Department received a comment about the importance of the Turnagain Bog wetlands for water quality. The commenter is concerned that development in that area be restricted as much as possible because of the high value of those wetlands.

Response:

Under the proposed draft permit there is no activity scheduled for the Turnagain Bog wetlands. No changes were made based on this comment.

2.3 Comment Summary

The Department received a comment asking about who is responsible for permit enforcement and issuing Notice of Violations. And is there a structure for leveling fines or schedule for improvements if a violation is issued?

Response:

DEC Division of Water Compliance and Enforcement Section is responsible for permit enforcement and issuing Notice of Violations. There is a mechanism for leveling fines. The proposed draft permit includes a schedule of compliance in Part 9.3 to address the residues at outfall 004D. No changes were made based on this comment.

2.4 Comment Summary

The Department received a comment regarding the reduction of Biological Oxygen Demand (BOD) and that there is a significant difference between ethylene glycol and propylene glycol.

Specifically, ethylene glycol is a smaller molecule, so it requires less oxygen to decompose; and it is biodegradable in soil. The commenter believes the use of ethylene glycol is a better fluid in the sense you don't need as much so you will reduce consumption by 10%, which would lower your overall outflow of BOD.

Response:

DEC reviewed the information submitted during the comment period on ethylene glycol and propylene glycol. DEC defers to the FAA, the Airport Authority, airlines, and Fixed Based Operators to determine the appropriate glycol to use for aircraft deicing while maintaining permit compliance. The Airport Authority, as the airport representative, has the flexibility under this permit to set airport requirements that are more specific than described in this permit. Also, see comment 5.7 and 5.8. No changes were made based on this comment.

2.5 Comment Summary

The Department received a comment encouraging the Department to evaluate the potential effects of the storm water discharged from the permitted outfalls on Cook Inlet beluga whales and their critical habitat, and to include permit conditions and requirements that are necessary and appropriate to minimize such effects to include monitoring to determine the effectiveness of the provisions of the GP and provide additional information regarding potential impacts of pollutants in the discharges. The commenter noted that in addition to ethylene glycol and propylene glycol, aircraft deicing fluids contain additives, such as surfactant and corrosion inhibitors, that are not addressed in the Fact Sheet.

Response:

Additional information was added to the Fact Sheet addressing topics raised by the commenter. See Fact Sheet Part 4.4.1.5.4.

2.6 Comment Summary

The Department received a comment on the hope that at some point the co-permittees would eliminate the discharge of hundreds of thousands of gallons of propylene glycol or ethylene glycol into the Cook Inlet drainage area. The commenter strongly supports and looks forward to the airport reducing the volume of glycol discharged through the use of recycling and use of recycled fluids (i.e., glycol).

Response:

Through source reduction techniques the permit requires the co-permittees to handle and apply aircraft deicing fluids in a more efficient manner within the constraints of flight safety. In Part 6.2.1.9, the permit requires the evaluation of the feasibility of recycling spent aircraft deicing fluid for reuse as aircraft deicing fluid at the airport. No changes were made based on this comment.

3 Comments on Coverage under this Permit

3.1 Comment Summary

One commenter asked about Part 1.2.2.3 if the Airport were to switch pavement deicers (i.e., chemical type), would they need to do any type of re-application or updated application?

Response:

If the primary chemical is the same and it is a change in brand names, the change needs to be recorded in the Storm Water Pollution Prevention Plan (SWPPP). No changes were made based on this comment.

3.2 Comment Summary

DEC received two comments on Allowable Non-Storm Water Discharges, Part 1.2.3. The first comment had to do with fire-fighting activities Part 1.2.3.1; does this include airport scheduled training activities? The second comment had to do with Part 1.2.3.9, can the Airport Authority be stricter than the permit in terms of not allowing for washing of aircraft in or near the lakes?

Response:

Fire training in the fire training area of the airport is covered by state permit 0221DB001 and is not covered by this permit. The Airport Authority as owner and manager of the airport can be more restrictive than the permit. No changes were made based on this comment.

3.3 Comment Summary

One comment on Part 1.2.4.3, please clarify if this part excludes storm water from parking lots, parking garage, buildings, roads and lawns.

Response:

Part 1.2.4.3 refers to those areas of the airport that pertain with the industrial activities associated with air transportation, generally referred to as “airside” activities. The exception is snow disposal areas in “landside” areas of the airport. Storm water runoff from “landside” activities such as parking lots, parking garages, roads and lawns are not covered by this permit. See Part 1.2.8. No changes were made based on this comment.

3.4 Comment Summary

One comment on Part 1.2.5 requested removing the first sentence, the Airport authority will not be responsible for coordinating co-permittee’s permit compliance.

Response:

DEC revised the first sentence of Part 1.2.5 to read, “The Airport Authority, as owner and manager of the airport, shall act as the airport representative.”

3.5 Comment Summary

One comment on Part 1.2.5.1 requested the second sentence be revised to read, “A co-permittee is responsible for storm water pipes on their leasehold that are under the co-permittee’s operational control and that discharge into the airport storm water system.”

Response:

DEC revised the sentence as requested.

3.6 Comment Summary

One comment on Part 1.2.5.3 pointed out that in theory, an airline or Fixed Base Operator (FBO) could do testing for Airport and others.

Response:

The sentence was revised to name the Airport Authority as the lead in collecting monitoring data. The revised sentence reads, “Agreements may be established between the Airport Authority and co-permittees to consolidate monitoring responsibilities while maintaining the Airport Authority as the lead entity in charge of the monitoring.”

3.7 Comment Summary

One comment on Part 1.2.6, the statement of joint responsibility is significantly less detailed and, as a result, less clear than the corollary section contained in the Department’s 2015 Multi Sector General Permit (MSGP) (AKG060000). The commenter requests that the Department consider employing the same language in this general permit applicable to a specific airport.

Response:

Permit Part 1.2.6 was revised to use the same language as to MSGP, with some minor modification.

4 Comments on Compliance with Standards and Limits

4.1 Comment Summary

One commenter wanted to add a Part 3.2.1.1 to read:” For outfalls with an approved mixing zone, the limits established in Tables 2 and 3 will be met at the mixing zone.”

Response:

For outfall 004D the limits in Table 3 the point of compliance is the edge of the mixing zone. A sentence was added to Part 3.4.2 to clarify this requirement.

4.2 Comment Summary

DEC received seven comments on Part 3.2.2, mostly about the general effluent limitations being too broad or subjective or more stringent than the water quality standards.

Response:

Part 3.2.2 was deleted; much of what was stated in Part 3.2.2 is covered by the Residue standard.

4.3 Comment Summary

DEC received six comments on Table 2 and three comments for Table 3: number of parameters to test for and testing frequency is excessive. Most of the parameters do not have any numeric compliance value and frequency would increase monitoring costs from approximately \$3k per year to almost \$50k per year. Not a practicable use of personnel or funds. Quarterly sampling would be more appropriate. Also, quarterly should be adequate to determine compliance and effectiveness of BMP's and BAT. Outfall E should have different limits since it is a marine outfall rather than freshwater. Re: TAqH & TAH. Understand WQS, but would prefer GRO/DRO/RRO as test for petroleum discharges. It would provide a better idea of what the petroleum source is.

Response:

Reviewing several northern state airport monitoring regimes find's the proposed monitoring frequency and parameter listing is robust but not excessive. Most of the monitoring frequency found in the other permits is monthly or weekly with a few quarterly requirements. The list of parameters required by this general permit is in line with some of the more robust permit requirements of comparable permits. Given the annual cost of deicing aircraft, the cost of monitoring for water quality compliance in the proposed permit is reasonable. Outfall E was reexamined and is determined to be an outfall to an unnamed creek rather than to a marine outfall. The sample point is on the unnamed creek well before its discharge into Turnagain Arm. DEC is retaining TAqH and TAH because they are WQS. Typically GRO/DRO/RRO are used as cleanup standards.

4.4 Comment Summary

Two commenters on the ammonia values in Tables 2 & 3, specifically the ammonia limitations in Tables 2 & 3 and Fact Sheet Appendices B and C have been incorrectly calculated.

Response:

Upon review of Table C-2 in the Fact Sheet, the commenter is correct the fresh water criterion was used instead of the marine water criterion. The table was appropriately revised. There is no Reasonable Potential for Ammonia and the parameter was deleted from Table 2, 3 and 6.

4.5 Comment Summary

One comment on Part 3.2.9, seems to be opposite of what Part 1.2.8 states. Also, deicing for this paragraph should also include pavement deicing.

Response:

Part 3.2.9 (now Part 3.2.8) refers to those areas of the airport property where industrial activity does take place (e.g. vehicle maintenance, equipment cleaning, or deicing operations (including pavement deicing)). Part 1.2.8 refers to those areas of the airport property where industrial activity does not take place (e.g. office buildings, automobile parking lots, lawns, and undeveloped areas); and these areas are excluded from permit coverage.

4.6 Comment Summary

One comment on Part 3.3.1.2, because the Airport Authority is conducting the water monitoring and then providing the results to air carriers and FBO's (Co-Permittees) the onus of this requirement is likely to fall only onto the Airport Authority. Clarification should be indicated here that Co-Permittees that operate in the affected drainage basin need to share in the corrective action responsibility.

Response:

The following sentence was added to Part 3.3.1.2: "Co-permittees must participate in corrective action for WQS exceedances from basins in which they have industrial activity (such as aircraft deicing)."

4.7 Comment Summary

DEC received four comments on Part 3.4.2, specifically the point of compliance with the water quality standards is at the edge of the mixing zone, not the end of the pipe. Thus, the permit limits must be adjusted to reflect the dilution obtained in the mixing zone. Mixing zone should be authorized for pH. The Fact Sheet Section 6.3 authorizes for oil and grease, the permit doesn't. Include pH, ammonia, dissolved oxygen, and color as indicated would be allowed in pre-draft meetings.

Response:

The point of compliance for Outfall 004D is the edge of the mixing zone. The mixing zone is authorized for dissolved oxygen, pH, and color.

4.8 Comment Summary

DEC received three comments on Part 3.5. First, WET testing is based on the premise of using species that are expected to be present to determine if discharge has pollutants at a level that would be toxic to those species. However, what species would be expected to be present in the receiving waters of ANC storm water discharge, during a snowmelt event, given the temperature of water and/or at the specified life stages of species indicated in permit? (WET testing will cost approximately \$10K per year.) Second, recommend WET Monitoring only once during permit term. Third, Change from "24 hour composite" to grab samples. The ACRP 134 cited in the fact sheet indicates that of the 21 permits that were reviewed for Airports that required WET testing, nine had no sampling guidelines (neither composite or grab), four had composite samples and eight had grab samples. WET sampling protocol requires a sample be taken every other day for three days (e.g., Monday, Wednesday and Friday) which would reasonably provide enough variation of pollutant loading as a composite sample. In addition, a 24 hour composite sample will not be able to be collected as defined in the permit with current personnel and sampling methods.

Response:

Whole Effluent Toxicity (WET) testing is an important component of the U.S. Environmental Protection Agency's integrated approach for detecting and addressing toxicity in surface waters. WET testing is used

to assess and regulate the combined effects of all constituents of a complex effluent rather than the conventional methods of controlling the toxicity of single chemicals or constituents. WET Monitoring is required each year of the permit because of the variable weather conditions from year-to-year will lead to a variable amount of deicing fluid applied each year. A synthesis of five WET testing results, along with chemical and physical analyses (added to Part 3.5.1.2 and Part 3.5.2.2) and other information derived from the Adaptive Management Plan, can provide a more comprehensive and realistic picture of potential effects of discharges into aquatic systems. The ACRP 134 says collection of a single sample is unlikely to be representative of the storm water discharge event. To address the commenters concern DEC modified the sampling from a 24-hour composite to a four hour –composite (collected once an hour over a four hour period to collect the volume of effluent needed for the WET testing and chemical and physical testing).

4.9 Comment Summary

DEC received eight comments on Part 3.6. First, recommend to strike this part because there is no indication there is a violation of water quality in the lake. Second, change the start date of sampling from May 2019 to 2020. Third, no reason to add a third sample site (Part 3.6.1.1), better to stick with historical testing locations. Fourth, in Part 3.6.2 recommend just testing one per month, with 30 days between tests regardless of flow into lakes. Fifth, comments on table 6 same as comments for table 2 and 3. Sixth, TAqH and TAH may not be a representative sample because sampling must be done while in a motor boat. (Not allowed to go out in human powered boat because it is not mobile enough to get out of the way of aircraft on the lake.) Seventh, would prefer GRO and DRO as those are the pollutants that are likely to be generated. Eighth, do the receiving bodies monitoring have to have monthly reports? Or are just monthly results sent in on a DMR? Is this annual report for just testing covered in section 3.6 or all water testing?

Response:

The MSGP Discharge Monitoring Report for the Quarter January 1 to March 31, 2019 found BOD and COD levels of 2290 mg/l and 5800 mg/l respectively for discharges from Outfall C. There is concern that these high levels will affect the Dissolved Oxygen levels in the lake and therefore the requirement for lake monitoring. The start date for lake monitoring was moved to May 2020. The third sample site was added to be closer to the outfalls to pick-up any influence from the outfalls on water quality. GRO and DRO are not water quality tests, so they are not used. The reporting for the lake monitoring is shifted to annual reporting. The outfall monitoring remains monthly reporting

5 Comments on Control Measures

5.1 Comment Summary

There were two comments on the second paragraph of Part 4.0. One comment said it was confusing and suggested deleting it. And the second comment wanted to delete the phrase “economically achievable” and replace it with “practicable.”

Response:

The permit uses Best Available Technology Economically Achievable (BAT). In general, BAT represents the best available economically achievable performance of plants in the industrial subcategory or category. Factors considered in assessing BAT include:

- cost of achieving BAT effluent reductions;
- age of equipment and facilities involved;
- the processes employed by the industry and potential process changes;
- non-water quality environmental impacts, including energy requirements; and
- other factors as EPA deems appropriate.

So it would not make sense to replace “economically achievable” with “practical.” No changes were made based on this comment.

5.2 Comment Summary

There was a comment about Part 4.2.1.6 that it is not good to store equipment without fluids.

Response:

The time period was increased from six months to twelve months.

5.3 Comment Summary

There was a comment about Part 4.2.2.5 in the first sentence strike “Prevent” and replace with “Minimize”. In the second sentence strike “Implement” and replace with “Consider these control measures”.

Response:

The use of “Prevent” was changed to “Minimize” to be consistent with other paragraphs of Part 4.2.2. The use of “Implement” is retained to be consistent with other paragraphs of Part 4.2.2.

5.4 Comment Summary

There was a comment about the second sentence of Part 4.2.2.6 referring to replacement chemicals are for pavement deicer only.

Response:

The phrase “for pavement deicing” was inserted to make the statement clearer. So it reads, “Chemical options to replace ethylene glycol, and propylene glycol for pavement deicing include:”

5.5 Comment Summary

There were two comments about Part 4.2.2.7. First, what should be reported exactly as it relates to pavement deicer? Second, strike “implement” and replace with “consider the following control measures”.

Response:

The reportable quantity per unit area could be used to evaluate application rates if correlated to weather conditions. As in comment 5.3 the word “implement” is retained to be consistent with other paragraphs of 4.2.2. No changes were made based on this comment.

5.6 Comment Summary

DEC received the following comments on Part 4.2.2.8.1.3 for control measure options.

- First, strike “implement” and replace with “consider these control measures”.
- Second, two requests that the Airport Authority and co-permittees develop a plan for reducing the use of glycol-based deicing/anti-icing chemicals at the Ted Stevens Anchorage International Airport, and include plans for installing appropriately sized open ended deicing hangers with targeted infrared wave equipment to remove frost, snow and ice off of aircraft.
- Third, who will confirm that all operators at the airport meet the requirements of this section? If the requirements of the section is not met, will DEC and/or the Airport require those trucks to be removed from use.
- Fourth, a commenter believed the use of "enclosed basket deicing trucks" should not be identified as a fluid reduction or control measure and they asked that this reference be removed from Paragraph 4.2.2.8.1.3.

Response:

The first sentence is left as is because some of options are required in Part 4.2.2.8.2. Then change “solar radiation” to “open ended deicing hanger(s) with targeted infrared wave equipment ...”
DEC Compliance inspectors will conduct inspections to ensure compliance with the requirements of this section. DEC believes the enclosed basket deicing trucks have the newer technology in optimizing deicing fluid usage, and meet the BAT requirement for Source Reduction

5.7 Comment Summary

One comment on Part 4.2.2.8.2, specifically, who will confirm that all operators at the airport meet the requirements of sections. If the requirements of the section is not met, will DEC and/or the Airport require those trucks to be removed from use?

Response:

The Permit is a self-policing permit. This means the Airport Authority and co-permittees are responsible to comply with the permit requirements for their regulated activities and document their compliance in the Storm Water Pollution Plan. DEC conducts spot-check inspections to ensure compliance with the permit requirements. No changes were made based on this comment.

5.8 Comment Summary

DEC received five comments on Part 4.2.2.8.3. All the commenters focused on the different requirements of handling propylene glycol and ethylene glycol and the properties of each. More specifically, if a co-permittee chooses ethylene glycol they must use it only in a designated geographical area of the airport property. If they use more than 30,000 gallons annually they must collect and properly dispose of off airport property 40% of glycol used. While this may be in anticipation of recycling in the future the commenters expressed their belief it is punitive to anybody who wants to use ethylene glycol based deicing fluids in the present. One commenter provided information to compare properties of propylene glycol and ethylene glycol.

Response:

Part 4.2.2.8.3 is derived from requirements developed by the Airport Authority as part of the ANC Operations Manual dated July 14, 2015 and inserted in the permit. It is DEC's understanding the Co-permittees (as of August 1, 2017) are already operating under the requirements of Part 4.2.2.8.3 so the permit is not adding a new condition of the deicing practices at Ted Stevens Anchorage International Airport. No changes were made based on this comment.

5.9 Comment Summary

One comment on Part 4.2.2.9, specifically the suggestion to change the use of the word "must" use a standardized pad or use a vacuum recovery truck for collection to "should consider".

Response:

Part 4.2.2.9.2.1 includes the modifier "where practicable" in the description of using the deicing pad.

5.10 Comment Summary

One comment on Parts 4.2.2.9.2.1 & 4.2.2.9.2.3, DEC needs to realize that collection cannot happen without corresponding treatment/recycling/disposal option.

Response:

DEC recognizes the treatment train approach of collection/treatment/recycling/disposal needs all parts to operate. DEC includes Part 4.2.2.9.2 as a means to encourage, to the extent currently practicable, the development of the treatment train at the airport. DEC recognizes the potential difficulties in this approach, so it is encouraged to be practiced as practicable, permit cycle by permit cycle as technology changes over time. The use of the word "practicable" in this Part indicates the evolving technological practices from permit cycle to permit cycle. No changes were made based on this comment.

5.11 Comment Summary

One comment on Part 4.2.2.10 deicing can occur outside the listed deicing season of October to May.

Response:

Added a phrase so it now reads "...typically occur at the facility, though deicing may occur anytime of the year."

5.12 Comment Summary

DEC received two comments on Part 4.2.2.11. First, because a majority of deicing activities are conducted by the airlines and FBO's (co-permittees) it is reasonable to require this committee to be coordinated by them and not the responsibility of ANC. Second, meet one time per year, not two. Requirement to submit meeting summaries in ANC's Annual Report is excessive.

Response:

The Airport Authority, as owner and manager of the airport, acting as the airport representative is the reasonable choice to coordinate the Facility-wide Deicing Committee. The Airport Authority may delegate the work of the Deicing Committee to the AIAS Airlines Airport Affairs Committee (AAAC), but is ultimately responsible for the permit tasks being completed because AAAC, as an entity, is not a permittee. Two meetings a year (one in the fall and one in the spring) are required to discuss preparations for the upcoming deicing season (fall meeting) and discuss successes and areas for improvement based on just finished deicing season (spring meeting). It is not excessive for the Airport Authority to include meeting summaries with their annual report. The meeting summaries may be developed by any co-permittee or the AAAC, but must be submitted with the Airport Authority annual report.

5.13 Comment Summary

One comment was received on Part 4.2.3, this part can be read fairly broad to include all records for repairs and maintenance on all equipment. What is the specific information or actions that ADEC desires to see?

Response:

The information to be maintained in the SWPPP is described in Part 5.5.5, Part 5.9, and Part 5.11. DEC is not looking for repair and maintenance records for snowplows and assorted automotive equipment, but does want spill and leaks logged, Part 5.11.4. No changes were made based on this comment.

5.14 Comment Summary

One comment on Part 4.2.4.3 and 4.2.4.4, both of these sections only refer to co-permittees or permittees. Recommend removing all references to Airport Authority and co-permittees and instead use permittees with the exception perhaps of the water sampling duties.

Response:

Added Airport Authority to go with co-permittees.

5.15 Comment Summary

One comment on Part 4.2.8, training for employees regarding monitoring, inspection, planning, reporting and documentation requirements is an inefficient use of employee time. Training should instead focus on BMPs for employees.

Response:

For the majority of the employees the training should focus on BMPs and spill response. For the employee(s) responsible for maintaining the SWPPP they will need training on conducting and recording inspections, and other reporting requirements such as the annual report. No changes were made based on this comment.

5.16 Comment Summary

One comment on Part 4.3, the point of certification is so ANC would not have to test but are being required to test. Should delete ammonia monitoring requirements.

Response:

With the annual submittal of the urea certification DEC decided to delete the ammonia monitoring requirement from Table 2, 3 and 6.

5.17 Comment Summary

DEC received four comments on Part 4.4. The comments focused on the belief that the existing snow disposal site is in compliance with the ADEC snow disposal area siting guidance and it is not necessary to require redesign within the permit conditions. A commenter cautioned against mandating the use of specific design criteria for snow disposal sites which were developed for non-airport applications as these may conflict with FAA or other flight safety and airport regulations. How will it be determined who will have responsibility for this area?

Response:

In the airport *Snow and Ice Control Plan* approved by FAA on 9/13/16 the area being used as a snow storage site is not identified in Figure 2 of the *Plan*. A sentence was added after the second sentence, “The retro fit must comply with applicable FAA flight safety and airport regulations.” The current snow storage site is on a lease lot leased by FedEx, so they will have responsibility for managing and maintaining the snow storage site.

5.18 Comment Summary

One comment on Part 4.5, should delete this part: e.g., if a co-permittee goes out and cleans out an o/w or grit separator, that is operating it, but why do we need to get an approval to do that?

Response:

The first sentence was modified to read, “For the Airport Authority and co-permittees who construct or install any part of a permanent storm water management control”

6 Comments on Storm Water Pollution Prevention Plan

6.1 Comment Summary

One comment on Part 5.5.4.2 that the Airport Authority should not be responsible for including co-permittee's record of the types of deicing chemicals used and the monthly quantities in their Annual Report.

Response:

DEC is under the understanding the Airport Authority already receives reporting from the co-permittees of their aircraft deicing fluid usage and type of ADF and reports it annually. (See Appendix C *Aircraft Deicing Fluid Management Strategies, Master Plan Update*, 2014). The summaries will also be reported in the Adaptive Management Plan on a Basin-by-Basin basis. No changes were made based on this comment.

6.2 Comment Summary

One comment on Part 5.5.4.5 that the phrase "permittee" be used throughout the permit to cover "Airport Authority" and "co-permittee".

Response:

In this part the phrase "permittee" was changed to "The Airport Authority and co-permittees must document the location" To be consistent with the rest of the permit.

6.3 Comment Summary

One comment on Part 5.5.4.6 that all permittees should have a summary of the sampling data, in theory, all co-permittees are responsible for storm water discharge pollutant loading.

Response:

Co-permittees are responsible for the storm water discharge pollutant loading from outfalls for the basins in which they apply deicing fluid. Part 1.2.6 was revised to discuss joint responsibility.

7 Comments on Adaptive Management Plan

7.1 Comment Summary

One comment on Part 6.0 was to strike this section. Most of the analysis required by this Part was conducted for the permit application and is therefore redundant. Tracking and documenting usage and reduction should just be part of SWPPP requirements and in the annual report.

Response:

The purpose of the Adaptive Management Plan (AMP) is to combine the individual activities of the Airport Authority and co-permittees to develop a coordinated approach to deicing management to improve water quality. By requiring a summation of the deicing fluid by co-permittee by drainage basin, the Adaptive Management Plan provides a summary to compare to

the outfall monitoring data that the individual SWPPPs do not. No changes were made based on this comment.

7.2 Comment Summary

One comment on Part 6.1.1, this Part is good as it deals with areas where more than one co-permittee operates.

Response:

The SWPPPs address individual co-permittee activities. The purpose of the Adaptive Management Plan is to address those areas where there are multiple co-permittees operating and to coordinate their activities to improve water quality, within the constraints of FAA flight safety requirements. No changes were made based on this comment.

7.3 Comment Summary

One comment on Part 6.1.3, this information was submitted as part of the permit application. If problem with what submitted, should deal with it during application process. Hard to set up when co-permittees just got permit and updating SWPPP for it.

Response:

The due date for developing the Adaptive Management Plan is moved to September 2020. This will give the Airport Authority and co-permittees time to develop their individual SWPPP and implement their source reduction techniques. In Part 6.2 there are some requirements (such as delineate drainage basins) that are a repeat of what was submitted in the application, this is because the information is required to carry out the Adaptive Management Plan. The previous information is sufficient for the new task.

7.4 Comment Summary

One comment on Part 6.3, good to see how effective the BAT is every year. Does not make sense to do a cost analysis of all deicing technologies every year. Very likely nothing will change. Of course if that is case, will just reference last year's report.

Response:

The cost analysis is not expected to change significantly from one year to the next. However, it may change from the beginning of the permit period to the end of the permit period, and thus contribute to the next permit cycle. No changes were made based on this comment.

8 Comments on Inspections

8.1 Comment Summary

One comment on Part 7.2, water monitoring and quarterly visual assessments are sole responsibility of ANC but Co-Permittees contribute to pollutant loading and therefore should be

required to be part of review process and any fixes (e.g., follow-up taken in response to any issues identified in annual inspection, quarterly visual inspections, corrective actions).

Response:

In Part 6, the Adaptive Management Plan has the Airport Authority and Co-permittees working together to identify the deicing usage by each basin. Then it provides a process (Part 6.3) to review and provide fixes and follow-up actions. Part 6.3.1.2 was added for the Airport Authority and co-permittees to monitor their individual and collective impacts on water quality.

8.2 Comment Summary

One comment on Part 7.3.3, if comprehensive site inspection is conducted during deicing operations it will likely not provide representative observations (b/c of frozen conditions) for discharges occurring, control measure conditions or evidence of pollution entering drainage system. If the intention is to ensure that ADF applicators are utilizing pollution prevention procedures would suggest stating such in a separate section.

Response:

DEC will leave Part 7.3.3 as is and add to Part 7.1.1.2 that describes that routine facility inspections shall take place, “during periods when the facility is in operation, specifically deicing operations.”

9 Comments on Monitoring

9.1 Comment Summary

DEC received three comments on Part 8.3.2.2, may have situation where there is no rain for more than 30 days. Also, if next month, can follow-up on this also be used as required monthly sampling. No shared responsibility between the Airport Authority and Co-Permittees if an effluent limit is exceeded. Monitoring required monthly already - redundant. Also, no end date to this "continue to monitor" requirement which there should be.

Response:

If there is no discharge because of the lack of precipitation then this must be noted on DMR. The monitoring will continue monthly as indicated in Table 2 and 3. No changes were made based on this comment.

9.2 Comment Summary

DEC received two comments on Part 8.3.3, discharges to Impaired Waters Monitoring requires only monitoring for the impairment but permit requirement exceeds this - only test for DO not what is in Table 6? Impaired Waters Monitoring Schedule is redundant. Already required to do monthly monitoring which includes DO for the lakes.

Response:

Section 8.3.3 Impaired Waters Monitoring Schedule was removed as effluent limits and monitoring is specified in Table 6. Permit Part 3.3.2 contains conditions where DEC will inform the permittee if any additional limits or controls are necessary if receiving waters become impaired with or without an EPA approved or established TMDL.

9.3 Comment Summary

One comment on Part 8.3.4, insert into second sentence "DEC will thoroughly evaluate and include in notification how the determination for additional monitoring is being required". And, the ability for ANC or Co-Permittees the avenue by which an appeal for this determination may be made.

Response:

In Part 8.3.4 a new second sentence is added and the second sentence (now the third sentence is modified. "DEC will evaluate and include in notification how the determination for additional monitoring is being required. Any such notice will state the reasons for the monitoring, locations, and parameters to be monitored, frequency and period of monitoring, sample types, and reporting requirements."

10 Comments on Corrective Actions**10.1 Comment Summary**

One comment on Part 9.0, if effluent limit isn't met all permittees should be required to respond to requirements in this section - not just ANC responsibility.

Response:

Through the development and annual updating of the Adaptive Management Plan it will become clear as to the areas of individual and joint responsibility. In Part 6.2 Co-permittees have to identify the basins in which they discharge deicing fluid. This then identifies which outfall they are contributing to and are responsible for. No changes were made based on this comment.

10.2 Comment Summary

One comment on Part 9.1.1, if this is a spill, why isn't ADEC spill notification sufficient? Seems redundant to provide the same notification to two sections at ADEC. Can we just cc water compliance on reports that we send to Spill section?

Response:

Yes, the primary notice is the spill response described in Part 4.2.4 and the Airport Authority and the co-permittees can cc Division of Water Compliance Section. No changes were made based on this comment.

10.3 Comment Summary

One comment on Part 9.1.4, clarify that it is the *efficacy* with which that designated TBEL is implemented, and not an informal change of position that results in a preference for application of a different technology, that may be a trigger for Corrective Action under the new permit.

Response:

Part 9.1.4 was revised to read, “An inspection or evaluation of the facility by a DEC official determines that modifications to the control measures are necessary to meet the reasonable effectiveness of the control measures/best management practices or effluent limits in this permit; or”

10.4 Comment Summary

DEC received two comments on Part 9.5. First, notification timing for spills is not same as this. Should be consistent. Second, some small spills they just keep a log and submit every month.

Response:

A sentence was added to Part 9.5.1 to say, “Petroleum and other spills covered by Part 4.2.4 shall follow the reporting schedule of that Part.”

11 Comments on Reporting and Recordkeeping

11.1 Comment Summary

Two comments on Part 10.1, if in February only Outfall E and D flows and that is all we tested, do we wait to submit results until we can test Outfalls A-C in March? The commenter requested thirty days instead of fifteen in order to give adequate time to have document signed and certified.

Response:

If during a monitoring period there is no discharge from an outfall then the monitoring report is filed with the report of no discharge. Part 10.1 was changed to reflect the reporting requirements from Appendix A, Standard Conditions, Part 3.2.1 for monitoring data collected be submitted to DEC no later than the 15th day of the following month (email date or postmark date) after the Airport Authority received the complete laboratory results.

11.2 Comment Summary

One comment on Table 8, revise table to reflect realistic permit issuance date.

Response:

Table 8 was revised based on an estimated permit effective date of 10/01/2019.

12 Comments on Fact Sheet

12.1 Comment Summary

One comment on Part 10.2, the existing description is very limited and understates the extent to which belugas frequent the waters of upper Cook Inlet, including Knik Arm. The commenter provided a description of the status of Cook Inlet belugas and their habitat use. The commenter also encouraged the Department to fully evaluate the potential effects of the storm water discharged from the permitted outfalls on Cook Inlet beluga whales and their critical habitat, and to include permit conditions and requirements that are necessary and appropriate to minimize such effects, including monitoring to determine the effectiveness of the provisions of the GP and provide additional information regarding potential impacts of pollutants in the discharges.

Response:

DEC used the commenter's description to improve this Part of the Fact Sheet. DEC included WET testing from the outfall that discharges into Knik Arm for the permit term (five years) to gain an understanding of the toxicity of the discharges from the airport. The reason for the five years of sampling is due to the variability in weather conditions that cause a range in the amount of deicing fluid used from year-to-year. The first permit term will provide the monitoring of conditions and form the basis for any permit changes in the second permit cycle. Also, with the monitoring of glycol usage in the Adaptive Management Plan DEC will be able to gain a better understanding of the effectiveness of the source reduction techniques. DEC also added information on the deicing fluids in the Fact Sheet Part 4.4.1.5.4

12.2 Comment Summary

One comment on Table C-2, it appears the calculation presented is for Outfall 004D. The calculations are incorrect in that freshwater ammonia criterion are used for comparison to the maximum concentration at the boundary of the mixing zone (Cd). The commenter provided a revision for Table C-2; there is no Reasonable Potential for Ammonia to exceed the saltwater criteria at the edge of the mixing zone; thus, no limit is required.

Response:

Upon review of Table C-2, the fresh water criterion was used instead of the marine water criterion. The table was revised. There is no Reasonable Potential for Ammonia, and was deleted from Table 3.